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Cultivating learning: a grounded theory of skills acquisition for vocation in modern apprenticeships

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Abstract

Apprenticeship training system involves various parties to ensure that training system run effectively. It is not just training to get the skills to vocation but it is the process of lifelong learning. The learning process will not stop as soon as it is certified but it continues in different location and design in the workplace. We argue that apprenticeships is just that a training system but more than that. Our paper provides a discussion result of modern apprenticeship system research and basic social process behind that. Our research examines what are the main concerns of the apprenticeship trainees and how they resolve it. We implement the grounded theory in exploration of their concern towards what they learn in the Kuala Lumpur Industrial Training Institute and the industry. We also examine why it is happen and how it is happen. Using grounded theory method, our findings suggest that cultivating learning was the main concern of the participant. In term of resolving that concern, respondents need to face various challenges and difficulties in their journey to learn for getting a job and survives in the real life.

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1. Introduction

Malaysia needs skilled workers to support the country's development to achieve vision 2020 (Ramlee and Rohana, 2013; Ruhizan et al., 2013; Yao Sua Tan, 2011). The era of knowledge economy and globalization leads to the necessity of human capital, which comprise professional and semi-professional as well as knowledgeable and

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skilled labor (Brockman, Clark and Winch, 2008; Ramlee et. al. 2008; Wan Seman, 2007). Over the years, the country has relied heavily on foreign labor from Indonesia and Bangladesh to fill positions in plantation and construction industries and also as domestic help (Malaysia, 2010). If employees released from Public Training Institutions (PTI) do not have the skills required by the industry, investors will not be interested in investing in Malaysia.

A study by Ab. Rahim and Ivan Hanafi (2007) quoted a report carried out by the Asian Development Bank on industrial workers in several countries, including Malaysia, revealing that the technical and vocational education apprentice products did not meet the quality standards nor were they willing to work. This may lead to decreased trust among employers in skilled workers, and at a more serious level, it may even cause the loss of potential foreign investors. Thus, the issue of the low quality and quantity of skills trainee output from the Malaysian technical education system should be addressed immediately in order to enhance investors' confidence in our country.

It is generally accepted that in order to achieve the status of a modern nation, a country does not only require highly-skilled workers but also moderate and low-skilled workers (Maynard and Smith, 2004). The subject of skilled workers as described above should not be an issue if they are provided quality training that fulfils the basic and generic skills required by the field of in which they are apprenticing.

1.1 Community Of Practice and Skills Aquisition

Communities of practice is not a new kind of organizational unit; rather, they are a different 'cut' on the organization's structure—one that emphasizes the learning that people have done together rather than the unit they report to, the project they are working on, or the people they know (Wenger, 1998). Learning is about becoming a member of certain practices and gaining access to valuable learning, leading to a form of belonging to and being accepted into these practices (Tangaard, 2007). Modern apprenticeship training system emphasizes the concept of cooperation between trainees and instructors also set up systems that make up the community of practice.

1.1.1. Skills Aquisition processes

In Malaysia, the field of vocational training emphasizes individual skills through experiential learning. Experiential learning or learning by doing something to get experience is based on the notion that individuals have not the understanding of the elements of thought that remain otherwise unchanged but is instead formed and re-formed through experience (Kolb, 1984).

Previous studies show that the formation of micro-skilled workers requires a few levels of mastery. Dreyfus and Dreyfus (1986) for example look at the process of understanding the formation starting from novice to expert through the five stages, which is novice, amateur, competent, proficient and expert. The novice phase is the stage in which the trainee acts only according to the instructions specified. The amateur stage is where he is guided to do something in a clear-cut way. The competent stage is where the trainee is able to perform the tasks assigned. Proficient level trainees are able to see the important aspects of the skills, which can be performed better while expert trainees are no longer, bound by rules, as they are able to accomplish things independently. The model by Dreyfus and Dreyfus (1980) describes the stages which one must go through before he reaches the level of expertise. However, it does not involve other social aspects that support the skills development process.

Brandt, Farmer, and Buckmaster (1993) explain the concept of apprenticeship skills formation through five stages which are different from that proposed by Dreyfus and Dreyfus (1980) but involve similar aspects of staging skills level. The model is divided into two stages i.e. cognitive modeling and behavioral modeling. This stage only involves the observation of the behavior of the instructor. The levelled approach also involves an attempt to gain skills and the process of reflection on what is being done. Gradually, the levels diminish the role of teachers and improve the ability of trainees. The ability of trainees is increased and they are finally able to perform according to the needs of the next level of self-directed learning. The final stage is when they are able to generalize the skills of the trainees in other tasks that require similar skills.

The basis for developing all these skills is derived from the concept of apprenticeship, which includes a variety of fields. Ryberg and Christiansen (2008) also introduced the ladder of participation based on learning to grow by Engstrom (1987). In the early stages, trainees imitate the behavior studied. Then, they go to the next level where the trainees who were able to things themselves with little error begin to dominate. Training for training will give confidence to the trainees, allowing them to enter the next stage. The final stage is where the trainees can already

teach the skills they have learnt to others.

The three skills formation process described (Brandt, Farmer, and Buckmaster, 1993; Dreyfus & Dreyfus, 1980, 1986; Ryberg and Christiansen, 2008) adapt the concept of apprenticeship where trainees learn from instructors in stages. The skills upgrading process is seen only in terms of individual skills without looking at the social processes that support the skills development process. Therefore, it begs the question of what are the processes experienced by ITI trainees in order to gain skills?

2.0. Problem Statements

The system implemented is to create high-skilled workers. High-skilled workers are an important asset to the formation of higher-income economic countries. Therefore, it is important to increase the number of trainees in the field of TVE enrollment and improve the overall quality of training offered (Mohd. Gazali, 2011). However, "how the process of the formation of highly skilled knowledge workers through apprenticeships systems in ITI that form the core of Malaysia's human capital be?". This question is important because previous studies (Ministry of Human Resources 2011; Centre for Instructor and Advanced Skills 2007; Rajiv 2009; UPM 2012) found that there is a gap between the skills required by employers and the skills available in the training center includes Kuala Lumpur Industrial Training Institute.

3. Method

3.1. Participants

Respondents were selected based on theoretical sampling in which we believe that those elected can contribute to the substantive area of the study. Selected sampling method is using the snowball and convenient. Respondents selected among the group of apprenticeship trainees from multiple trade under National Dual Training System (NDTS) started an excellence and able to provide information on research topics. Studies conducted to achieve theoretical saturation when the number of respondents reached 32 participants among administrators, instructors, employers and industry supervisors and the trainees themselves.

Specifically, of 15 apprenticeship trainees, two ITI administrators, 10 instructors, five industry employers and supervisors were interviewed. Respondents were selected from various areas of study offered at selected locations (Kuala Lumpur Industrial Training Institute). We want to see from a variety of individual perspective various areas to see the diversity that exists. Different depth exploration and will give a better meaning to the main concern studied and how they resolve it in a different context.

3.2. Data collection

To achieve the objectives and answer the research questions set we use three main methods of data collection through interviews, observation and document analysis. Interview sessions conducted using a set of open interview question guide developed by us as a guide for initial questions before going to the general question of existence based on the responses given by the respondents. Interview sessions conducted at various locations in accordance with the requirements of the respondents and typically take from 60-90 minutes depending on the space-time respondents. Respondent provided a letter of consent to be interviewed as verification and ethics set interviews to explain the rights of the respondent during the interview.

In addition to the interview memos and notes of observations were also recorded for the researcher to write a reflection of the perceived situation and the concepts developed during the observation. Written memo exists in a variety of shapes and sizes. Researchers recorded memo formation in the concepts exists. Document analysis was conducted to see the appropriate document and may help researchers gain more in-depth information about basic social processes studied.

3.3 Data analysis

Grounded theory methods used during the process of data analysis. We started with writing memos after each interview conducted. This formed the memo different from one another memo by memo based on indicators,

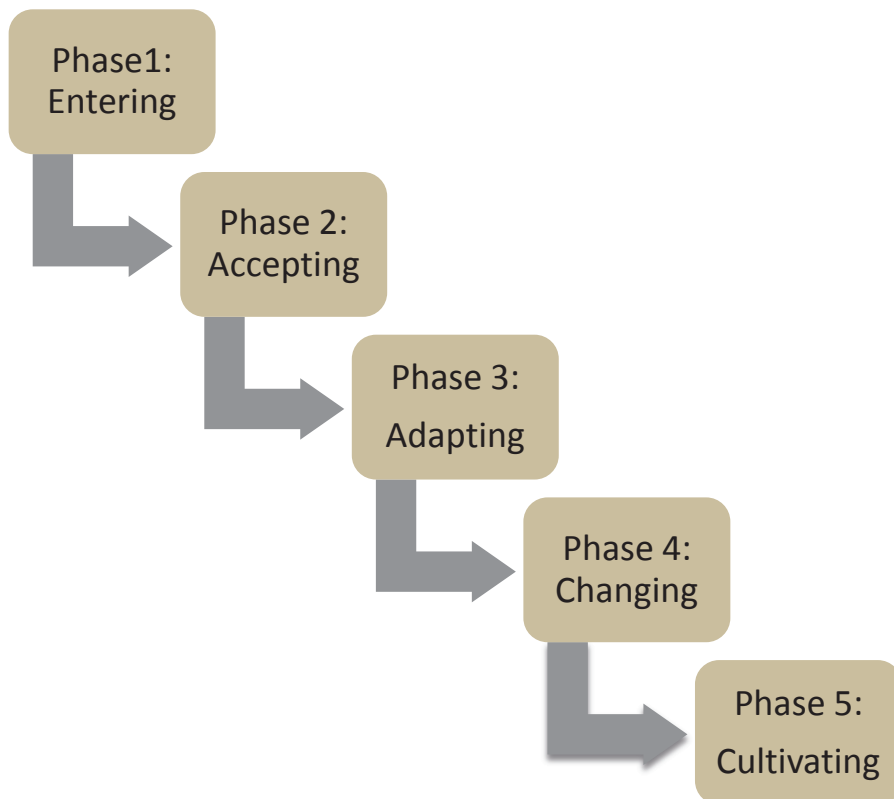
incidents, concepts, and categories emerging. According to Glaser (1998) memoing is a core process in grounded theory study. It was written about the ideas that emerged during the coding process, data collection and analysis as well as relationship codes that exist in theory during the process of writing the memo. Codes and categories that emerged was formed and by our own synthesis based on the emerging category. It is different from the common qualitative method based on the analysis of themes that have been formed earlier.

Data were analyzed using the substantive coding involving open coding and selective coding (Glaser 2004). We have also run simultaneously with the constant comparative method in which we compared the incident to incident, incident and concept to concept (Glaser and Strauss, 1967). Every concept that emerges will be compared with other concepts. All of these processes will be compared with each other to see the emergence of the concepts that would eventually form the core categories of the study.

4.0 Findings

Grounded theory in the data emerged when each concept that appears comparable using constant comparative method to see whether there are differences in the characteristics of each of the same concept in different respondents. This comparison is recorded in a memo to facilitate the compilation of memos and coding. Memoing start from first interview until theoretical saturation was achieved. Writing this memo form concepts outlined as Figure 1.

Figure 1: Basic Social Process of Cultivating Learning



4.1 Entering

There are several categories of trainees who choose to enter the ITI, namely:

- 1) Entering because as interested

- 2) Entering because as the influence of friends
- 3) Entering because as coercive family

Category 1 trainees have interest in the field followed. Many factors support this situation occurs as vocational trainees during the course of secondary school, trainees who had previously failed elsewhere changed the determination to succeed in a new place, and also trainees who already clear that this is an opportunity or an easy way to get a job. For category 2 are trainers usually have friends who really are studying or have graduated in ITI share learning experiences that are very good at ITI. While the third category is the trainer who was forced by the family to enter the ITI trainees involved due to family see fit with the field. Various contexts makes entering the ITI trainees create a concept known as the entry phase.

4.2. Accepting

The second phase, we find that trainees are willing to learn and change based on their own accord. Trainees accept the fact that they had learned in ITI and form relationships with new friends. At this level trainees are willing to accept learning sessions to increase knowledge and skills. Trainees also accept the fact that there initial perception of the different ITI and accept the situation.

4.3. Adapting

In this phase, trainees adapt teaching and learning environment. Trainees have successfully adapted to new friends and also can adapt itself to the learning environment. During this process has already begun cooperative learning because trainees are beginning to choose a compatible friends with him as a friend learn. Learning process occurs in the ITI most by a friend who has been familiar with community of practice. Trainees have successfully adapted to this situation.

4.4. Changing

At this stage, trainees receive learning skills as a routine process in life as a trainee. Trainees are starting to accept the learning environment as a result industrial atmosphere emphasized by the instructor on real industrial situations. Trainees who successfully achieve this phase confident with his ability to adapt to the learning environment in the industry.

4.5. Cultivating

The final phase is where the trainees to accept the fact that the skills learned are to help them to get jobs. Hence any input acquired knowledge and skills will be associated with future employment in the industry. They are aware of what employers want from them is a knowledgeable and skilled workers as well as having the characteristics of highly skilled trainers at their level.

5. Discussions

Basic social process that occurs suspension changed to instructor or supervisor of the industry. These changes involve the instructor or supervisor; the industry plays an important role in the early stages and almost diminished when graduating trainees. This is because trainees have started to master the technical skills and so on, and are able to do their own assigned tasks. These changes are consistent with Ryberg and Christiansen (2008), which show the same process. The process is described in five phases.

Entering

This phase involves the initial phase in which the ITI as a trainee choose to study in the area of interest. At this stage there are certain categories of incoming trainees with interest, in the follow friends, in effect push parents. At this stage, there is also a trainer who is not in the selected program due to limited places available, but due to the keen interest to learn the coach must accept the situation as it is.

The findings are consistent with studies UPM (2012), which emphasizes the early selection process to the public skills training institutes. It was found that the early entry process should begin with an interest in the course. However, this level varies with the early stages of the apprenticeship model of participation and control (Ryberg & Christiansen, 2008) leading to the formation of basic skills through imitation behavior.

Accepting

The second phase, I find that trainees are willing to learn and change based on their own accord. Trainees accept the fact that he had learned in ITI and form relationships with new friends. At this level trainees are willing to accept learning sessions to increase knowledge and skills. Trainees also accept the fact that their initial perception of the different ITI and accept the situation. This stage is consistent with the early stages of the apprenticeship model of participation and control (Dreyfus & Dreyfus 1980; Brandt, Farmer, and Buckmaster, 1993; Ryberg & Christiansen, 2008).

Adapting

In this phase, trainees adapt teaching and learning environment. Trainees have successfully adapted to new friends and also can adapt itself to the learning environment. During this process has already begun cooperative learning because trainees are beginning to choose a compatible friends with him as a friend learn. Social interaction in the ITI happens most by a friend who has been selected. Trainees have successfully adapted to this situation. This stage is also consistent with the early stages of the apprenticeship model of participation and control (Brandt, Farmer, and Buckmaster, 1993; Ryberg & Christiansen, 2008).

Changing

At this stage, trainees receive learning skills as a routine process in life as a trainee. Trainees are starting to accept the learning environment as a result industrial atmosphere emphasized by the instructor on real industrial situations. Trainees who successfully achieve this phase have a confident with his ability to adapt to the learning environment in the industry. This stage is also consistent with the early stages of the apprenticeship model of participation and control (Brandt, Farmer, and Buckmaster, 1993; Ryberg & Christiansen, 2008).

Cultivating

The final phase is where the trainees to accept the fact that the skills learned are to help them to get jobs. Hence any input acquired knowledge and skills will be associated with future employment in the industry. They are aware of what employers want from them is a knowledgeable and skilled workers as well as having the characteristics of highly skilled trainers at their level. This finding is consistent with the self-study process outlined by Zimmerman (2002). At this level trainees are able to modify the context of the new knowledge skills. Learning does not primarily involve the transfer of knowledge from trade vocational schools to practical contexts of application, but rather the process of gaining increasing familiarity with the objects and persons in and across different communities of practice (Tangaard, 2007).

These findings are also in line with the action plan of the culture of lifelong learning (2011-2020) which seeks to overcome the seven main problems: i) the absence of lifelong learning policy in full, ii) the lack of monitoring of lifelong learning programs at the national level, iii) poor awareness and participation in lifelong learning programs, iv) inadequate financial support for lifelong learners, v) inadequate mechanisms and infrastructure for implementation of lifelong learning program, vi) the overlapping activities of lifelong learning and vii) recognition (KPT 2011). It also supported the generalization phase that allows trainees to do the skills in other contexts either in industry or in practice (Hansman, 2002).

6. Future Research

Further research could also involve more public skills training institute for broader perspective and greater. This will provide a more in-depth input from a different angle. Exploration can be done in terms of gender, socio-economic status, family background, parental education to see parents supporting susceptibility factor choose ITI institutes and other public skills.

7. Conclusions

Basic social process that occurs, will gives us a broad view about the concepts that contribute to the formation of an apprenticeship model using the grounded theory method. Basic social process that occurs is to provide information to us that the processes of formation of skills for the job look a certain phase.

The five phases shows us clearly that the initial selection of trainees to training institutions is an important

process. It helps us determine the success of the training provided to trainees. If the apprenticeship trainees are not interested in what follows, it will affect the overall learning system.

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